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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,641	04/06/2001	Charles E. Jagger	28349/37268	9029

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CHICAGO, IL 60606

EXAMINER
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FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
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2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/827,641

Applicant(s)

JAGGER ET AL.

Examiner

Derrick W. Ferris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11-16 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-20 is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. This Office action is in response to applicant's paper filed 12/29/2006. **Claims 1-10, 17-20** as amended are still in consideration for this application.
2. Examiner **withdraws** the objection to the specification. Examiner thanks applicant for making the necessary corrections.
3. Examiner does **not withdraw** the anticipated rejection to *Tokuda* and obviousness rejection to *Tokuda* in view of *Rakib*. The following comments fully address applicant's arguments with respect to the rejection. The examiner assumes a reasonable but broad interpretation of a "failure condition" in view of applicant's specification. In particular, please note the indicated allowable subject matter with respect to independent claims 17 and 19 in regards to specific failure conditions. As such, *Tokuda* teaches a failure condition by checking the interferences levels using frequency detecting circuit 17, see e.g., column 9, lines 15-20. Similarly, *Rakib* teaches a detection and cancellation circuit which tests for a failure condition based on interference threshold values, see e.g., column 6, lines 26-45 and column 9, lines 26-64.. Hence the rejection is maintained.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-6** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,035,213 A to *Tokuda et al.* (“*Tokuda*”).

As to **claim 1**, scanning at least some of the narrowband channels to determine signal strengths in at least some of the narrowband channels is taught by the disturbing signal detecting circuit 106. Determining a threshold based on the signal strengths in at least some of the narrowband channels and identifying narrowband channels having signal strengths exceeding the threshold is taught as exceeding a reference level, see e.g., middle of column 3. Assigning filters to at least some of the narrowband channels having signal strengths exceeding the threshold is taught by the variable notch filter. Finally, determining if the assigned filters are operating properly and bypassing any of the assigned filters that are not operating properly is taught by frequency detecting circuit 107 used to control the notch filter by ON-OFF control, see e.g., columns 9-10.

As to **claim 2**, see e.g., figure 8 where the output of the filter is fed into the disturbing signal detecting circuit.

As to **claim 3**, the disturbing signal detection circuit detects interference, see e.g., top of column 6 with respect to disturbing signals.

As to **claim 4**, the known interference value is the threshold, see e.g., middle of column 3.

As to **claim 5**, the filter is bypassed based on the ON-OFF capability, see e.g., middle of column 9.

As to **claim 6**, see similar rejection to claim 1.

***Claim Rejections - 35 USC § 103***

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 7-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,035,213 A to *Tokuda et al.* ("*Tokuda*") in view of U.S. Patent No. 6,426,983 B1 to *Rakib et al.* ("*Rakib*").

As such to **claim 7**, *Tokuda* discloses limitations in the parent claim.

*Tokuda* is silent or deficient to the further limitation of an A/D converter. In particular, *Tokuda* does not further disclose the components of the receiver 102, see e.g., middle of column 7.

*Rakib* teaches the further recited limitation above at e.g., middle of column 4.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Tokuda* by further clarifying that it is well known in the art to use an A/D converter in a radio receiver.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, the motivation for modifying the reference or to combine the reference teachings would be to perform signal processing on the received signal by sampling the signal for a predetermined time period. In particular, *Rakib* cures the above-cited deficiency by providing a motivation found at e.g., middle of column 4.

As to **claim 8**, see similar rejection to claim 3.

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As to **claim 9**, see similar rejection to claim 4.

As to **claim 10**, see similar rejection to claim 5.

***Allowable Subject Matter***

8. **Claims 17-20** are allowable.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571)272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
DWF

Derrick W. Ferris  
Examiner  
Art Unit 2616

 2/15/02  
**DERRICK W. FERRIS**  
**PRIMARY PATENT EXAMINER**